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| 10/589,503   | 08/15/2006  | Masato Otsuka        | OTSU3004/REF        | 9443             |
| 23364 7590 12/08/2009<br>BACON & THOMAS, PLLC<br>625 SLATERS LANE<br>FOURTH FLOOR<br>ALEXANDRIA, VA 22314-1176 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| TABOR, AMARE F   |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/589,503

**Applicant(s)**

OTSUKA ET AL.

**Examiner**

AMARE TABOR

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,10,11,14,18,21-23 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-31 is/are rejected.
- 7) ☒ Claim(s) 2,3,10,11,14,18 and 21-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This correspondence is in response to **Amendments** and **REMARKS** filed on 08/10/2009.
2. Claims 2, 3, 10, 11 and 21 are amended; and Claims 26-31 are new claims.
3. **Claims 2, 3, 10, 11, 14, 18, 21-23 and 26-31** are pending.

### *Claim Objections*

4. **Claims 2, 3, 10, 11, 14 and 26-31** are objected to because of the following informalities:

Please replace "and/or" with "and"

For example:

In Claim 2, the phrase "...recognizing a recording position in a radial direction of the optical disc and/or a position in a track direction of said plurality of marks as the BCA code..." need to be amended as: "...recognizing a recording position in a radial direction of the optical disc and a position in a track direction of said plurality of marks as the BCA code..."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 26-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over **"Mochizuki"** (US 7,020,780 B1) in view of **"Wei"** et al. (US 2006/0265752 A1).

As per Claim 26, Mochizuki teaches:

An illegal copy finding system finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising:

a recording apparatus [see **104** in FIG.3] recording on the optical disc [see **100** in FIG.3] the BCA code modulated from BCA information as a plurality of marks [see **S1** in FIG.4] and adding a secret code [see **S42** in FIG.7] to said BCA code in addition to the modulation of the BCA information, said secret code including a changed position in a radial direction and/or a changed position in a track direction of said optical disc concerning said plurality of marks in a range of recognizing said BCA code [see for example, col.6, line 55 through col.6, line 26]; and a management center [see **110** in FIG.3] reading the BCA code and the secret code recorded on the optical disc [see **S31/S51** in FIGS.6/8] so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22].

**Mochizuki** does not explicitly disclose a BCA history database storing a history including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code. However, in the same field of endeavor, **Wei** discloses a BCA history database storing a history [see **102 and 106** in FIG.3; and for example, par.0005] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code [see **30 and 132** in FIGS.1 and 3 respectively]. Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of applicant's invention was made, to modify the system of **Mochizuki** by incorporating the teaching of **Wei** and arrive at applicant's claimed invention. The modification is beneficial to implement a disc registration method that would help to eliminate unauthorized disc copying [see at least abstract and par.0005 of **Wei**].

As per Claim 27, Mochizuki-Wei combination teaches:

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An illegal copy finding method of finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording step [see **104** in FIG.3 of **Mochizuki**] of recording on the optical disc [see **100** in FIG.3 of **Mochizuki**] the BCA code modulated from BCA information as a plurality of marks [see **S1** in FIG.4 of **Mochizuki**] and adding a secret code [see **S42** in FIG.7 of **Mochizuki**] to said BCA code in addition to the modulation of the BCA information, said secret code including a changed position in a radial direction and/or a changed position in a track direction of said optical disc concerning said plurality of marks in a range of recognizing said BCA code [see for example, col.6, line 55 through col.6, line 26 of **Mochizuki**]; a storing step of storing a history [see **102 and 106** in FIG.3; and for example, par.0005 of **Wei**] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database [see **30 and 132** in FIGS.1 and 3 respectively of **Wei**]; and a comparing step of reading the BCA code and the secret code recorded on the optical disc so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22 of **Mochizuki**].

As per Claim 28, Mochizuki-Wei combination teaches:

An illegal copy finding system finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording apparatus [see **104** in FIG.3 of **Mochizuki**] recording on the optical disc [see **100** in FIG.3 of **Mochizuki**] the BCA code modulated from BCA information as a plurality of marks [see **S1** in FIG.4 of **Mochizuki**] and adding a secret code [see **S42** in FIG.7 of **Mochizuki**] to said BCA code in addition to the modulation of the BCA information, said secret code including a changed length in a radial direction and/or a changed width in a track direction of said optical disc concerning said plurality of marks in a range of recognizing said BCA code [see for example, col.6, line 55 through col.6, line 26 of **Mochizuki**]; a BCA history database storing a history [see **102 and 106** in FIG.3; and for example, par.0005 of **Wei**] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code [see **30 and 132** in FIGS.1 and 3 respectively of **Wei**]; and a

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management center reading the BCA code and the secret code recorded on the optical disc so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22 of **Mochizuki**].

As per Claim 29, Mochizuki-Wei combination teaches:

An illegal copy finding method of finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording step [see **104** in FIG.3 of **Mochizuki**] of recording on the optical disc [see **100** in FIG.3 of **Mochizuki**] the BCA code [see **S1** in FIG.4 of **Mochizuki**] modulated from BCA information as a plurality of marks and adding a secret code [see **S42** in FIG.7 of **Mochizuki**] to said BCA code in addition to the modulation of the BCA information, said secret code including a changed length in a radial direction and/or a changed width in a track direction of said optical disc concerning said plurality of marks in a range of recognizing said BCA code [see for example, col.6, line 55 through col.6, line 26 of **Mochizuki**]; a storing step of storing a history [see **102 and 106** in FIG.3; and for example, par.0005 of **Wei**] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database [see **30 and 132** in FIGS.1 and 3 respectively of **Wei**]; and a comparing step of reading the BCA code and the secret code recorded on the optical disc so as to compare on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22 of **Mochizuki**].

As per Claim 30, Mochizuki-Wei combination teaches:

An illegal copy finding system finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording apparatus [see **104** in FIG.3 of **Mochizuki**] having a function to record on an optical disc [see **100** in FIG.3 of **Mochizuki**] a BCA code [see **S1** in FIG.4 of **Mochizuki**] modulated from a BCA information as a plurality of marks, and adding a secret code [see **S42** in FIG.7 of **Mochizuki**], in which positions in an optical disc radial

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direction and/or positions in a track direction of said marks are changed, within a range of being recognizable as the BCA code in addition to the modulation of the BCA code at a time of the modulation [see for example, col.6, line 55 through col.6, line 26 of **Mochizuki**]; a BCA history database storing a history [see **102 and 106** in FIG.3; and for example, par.0005 of **Wei**] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code [see **30 and 132** in FIGS.1 and 3 respectively of **Wei**]; and a management center reading the BCA code and the secret code recorded on the optical disc so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22 of **Mochizuki**].

As per Claim 31, Mochizuki-Wei combination teaches:

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An illegal copy finding method of finding an illegal copy of an optical disc on which data and a BCA code are recorded, comprising: a recording step [see **104** in FIG.3 of **Mochizuki**] of recording on an optical disc [see **100** in FIG.3 of **Mochizuki**] a BCA code [see **S1** in FIG.4 of **Mochizuki**] modulated from a BCA information as a plurality of marks, and adding a secret code [see **S42** in FIG.7 of **Mochizuki**], in which positions in an optical disc radial direction and/or positions in a track direction of said marks are changed, within a range of being recognizable as the BCA code in addition to the modulation of the BCA code at a time of the modulation [see for example, col.6, line 55 through col.6, line 26 of **Mochizuki**]; a storing step of storing a history [see **102 and 106** in FIG.3; and for example, par.0005 of **Wei**] including a correspondence between the BCA code of the optical disc recording said BCA code and the secret code in a BCA history database [see **30 and 132** in FIGS.1 and 3 respectively of **Wei**]; and a comparing step of reading the BCA code and the secret code recorded on the optical disc so as to compare both on the basis of an input of the correspondence between the BCA code and the secret code stored in said BCA history database [see FIG.7 and Second Embodiment; and for example, col.10, lines 3-22 of **Mochizuki**].

### *Response to Arguments*

6. Applicant's arguments with respect to claims 26-31 have been considered but are moot in view of the new ground(s) of rejection.

*/\* Examiner's Note: The newly added claims (26-31) are substantially the same claims that are already examined earlier. Therefore, examiner has repeated the earlier rejection made. For example, Claim 26 is quite similar to Claim 2 as originally filed on 08/15/2006. The same holds true for the succeeding claims. \*/*

### *Allowable Subject Matter*

7. Applicant's arguments with respect to claims 2, 3, 10, 11, 14, 18 and 21-23 have been fully considered and are persuasive. Therefore, the rejection of the claims over prior arts of



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record has been withdrawn. Accordingly, after conducting further reading and updated search, the claims will be allowed if applicant overcomes the above claim objection.

8. The following is an examiner's statement of reasons for allowance:

(i) Regarding claims 2, 3, 10 & 11, the cited prior art has been discussed in the previous action. Specifically, the Mochizuki, Wei and Murakami references are cited for teaching an optical disc recording apparatus, and a management center that reads the BCA code and the secret code that are recorded on the optical disc. However, the prior art of record fails to teach or disclose, either alone or in combination, a system of finding an illegal copy of an optical disc, wherein a recording apparatus recording on the optical disc the BCA code constituted by a plurality of marks and including a secret code which is modulated in accordance with a previously determined procedure and the secret code forms an undulation with respect to the BCA code in a range capable of recognizing a recording position in a radial direction of the optical disc "and" a position in a track direction of said plurality of marks as the BCA code; **and** a secret code memory storing a secret code modulated in accordance with a previously determined procedure in a range capable of recognizing positions in the radial direction of the optical disc and positions in the track direction of a plurality of marks forming the BCA code as the BCA code with respect to the BCA code stored in said BCA code memory in combination with the other elements of the claims as a whole.

- (ii) Claims 14, 18 & 21-23 are allowed based on their dependence.

### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***CONTACT INFORMATION***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **AMARE TABOR** whose telephone number is (571)270-3155. The examiner can normally be reached on Mon-Fri 8:00a.m. to 5:00p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kambiz Zand** can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amare Tabor  
(AU 2434)

/Michael J Simitoski/  
Primary Examiner, Art Unit 2439